

dm



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,993	03/31/2004	Edward Raymond Dowski JR.	420229	6078
30955	7590	01/10/2006		
LATHROP & GAGE LC 4845 PEARL EAST CIRCLE SUITE 300 BOULDER, CO 80301			EXAMINER CHAWAN, SHEELA C	
			ART UNIT 2623	PAPER NUMBER

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,993

Applicant(s)

DOWSKI ET AL.

Examiner

Sheela C. Chawan

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20- 21, 23, 24, 31- 34 and 35 - 41 is/are pending in the application.
- 4a) Of the above claim(s) 19,22 and 27-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20- 21, 23, 24, 31- 34 and 35 - 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on October 17, 2005 have been fully considered but are deemed to be moot in view of the new grounds of rejection.

Claims 19, 27- 30 are withdrawn.

Claim 22 canceled.

Claims 1-18, 20- 21, 23, 24, 31- 34 and 35 - 41 are pending in the application.

Election/Restrictions

Art Unit: 2623

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-18, 20-21, 23, 24, are drawn to the overall combination of an optical imaging system for reducing focus-related aberrations, optics, including a wavefront coding element, for imaging a wavefront of the imaging system to an intermediate image and for modifying phase of the wavefront such that an optical transfer function of the optical imaging system is substantially invariant to the focus-related aberration induced, over time, by an intervening medium, classified in class 382, sub class 128.

II. Claim 31-34, are drawn to subcombination including a biometric optical recognition system, optics, including a wavefront-coding element for imaging a wavefront of an object to be recognized to an intermediate image, and a detector for detecting the intermediate image, wherein a modulation transfer function detected by the detector contains no zeros such that subsequent task based image processing recognizes the object, classified in class 382, sub class 115.

III. Claims 35 - 41 are drawn to subcombination including an optical imaging system, optics for imaging electromagnetic radiation to a detector, the detector being tilted with respect to an optical axis of the optics to direct back-scatter electromagnetic radiation from the detector to an aperture stop of the imaging system, and a post processor for processing data from the detector to remove aberrations induced by the tilt of the detector, classified in class 359, sub class 322.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does

not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combination (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particular of the subcombination as claimed because the details in the broadest subcombination claim 31 requires a biometric optical recognition system and a detector for detecting the intermediate image, wherein a modulation transfer function detected by the detector contains no zeros such that subsequent task based image processing recognizes the object, which is not recited in the broadest combination claim 1. The subcombination has separate utility such as a biometric recognition system with optics and a detector for detecting a modulation transfer function contain no zeros such that recognize the object based on image processing.

Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combination (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particular of the subcombination as claimed because the details in the broadest subcombination claim 35 requires optics for imaging electromagnetic radiation to a detector, the detector being tilted with respect to an optical axis of the optics to direct back-scatter electromagnetic radiation from the detector to an aperture stop of the imaging system, which is not recited in the broadest combination claim 1. The subcombination has separate utility

such as a detector being tilted with respect to optical axis of the optics to direct back-scatter electromagnetic radiation from the detector

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art shown by their different classification and recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).


5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventor ship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventor ship must be accompanied by a diligently filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sheela Chawan
Patent Examiner
Group Art Unit 2623
December 23, 2005